

FACT SHEET

as required by LAC 33:IX.3109 for major LPDES facilities, for draft Louisiana Pollutant Discharge Elimination System Permit No. LA0043915; AI 28158; PER20060002 to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS: City of Winnfield
City of Winnfield Wastewater Treatment Plant
P.O. Box 509
Winnfield, LA 71483

II. PREPARED BY: Angela Marse

DATE PREPARED: July 29, 2008

III. PERMIT ACTION: reissue LPDES permit LA0043915, AI28158

LPDES application received: July 12, 2006

LPDES permit issued: December 1, 2001

LPDES permit expired: November 30, 2006

IV. FACILITY INFORMATION:

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Winnfield and the Town of Joyce.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 1003 McLeod Drive in Winnfield, Winn Parish.

D. The treatment facility consists of an intra channel boat clarifier in an extended aeration ditch. Disinfection is by chlorination. The effluent is dechlorinated prior to discharge.

E. Outfall 001

Discharge Location: Latitude 31°55'10" North
Longitude 92°37'50" West

Description: treated sanitary wastewater

Design capacity: 1.46MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

Fact Sheet

LA0043915; A128158; PER20060002

Page 2

V. RECEIVING WATERS:

The discharge is into Creosote Branch, thence into the Dugdemona River, thence into the Little River in segment 081402 of the Ouachita River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The critical low flow (7Q10) of Creosote Branch is 0 cfs. The hardness value is 148.5 mg/l and the fifteenth percentile value for TSS is 7.6 mg/l.

The designated uses and degree of support for Segment 081402 of the Ouachita River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Full	Full	N/A	N/A	N/A	N/A

^{1/} The designated uses and degree of support for Segment 081402 of the Ouachita River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Subsegment 081402 of the Ouachita River Basin is listed on the Court Ordered 303(d) List of impaired waterbodies. The suspected cause of impairment is pathogen indicators due to unsewered areas and livestock. Monitoring for fecal coliform colonies is the best indicator for the potential presence of pathogenic organisms in wastewater. To prevent the introduction of pathogenic organisms in the receiving waterbody from this discharge, fecal coliform limitations have been placed in the permit. These effluent limitations are based on state standards for the designated uses of the receiving waterbody. A reopener clause has been placed in the permit to allow for more stringent or additional effluent limitations to be placed in the permit as a result of any future TMDL or water quality study. Previously, Subsegment 081402 was impaired due to copper, lead, mercury, turbidity, and organic enrichment/low dissolved oxygen. Water quality assessments conducted since the issuance of the previous permit have indicated these causes no longer contribute to the impairment of the receiving waterbody. Therefore, they were not considered in developing effluent limitations.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 081402 of the Ouachita River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

Fact Sheet

LA0043915; A128158; PER20060002

Page 3

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse

Permits Division

Department of Environmental Quality

Office of Environmental Services

P. O. Box 4313

Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Interim Effluent Limits:

OUTFALL 001

As stated in Section V. Receiving Waters, the facility discharges into Creosote Branch, thence into the Dugdemona River. The Dugdemona River is in the Ouachita River Basin and includes Water Quality Subsegments 081401 and 081402. Water quality data was collected throughout the Dugdemona River watershed. A TMDL was done for the Dugdemona River (Headwaters to the junction with Big Creek) for biochemical oxygen demanding substances and nutrients (2001). The City of Winnfield is downstream from the River's junction with Big Creek. The TMDL derived limits for the Town of Grambling and the Town of Jonesboro only. Discharges from remaining facilities were anticipated to have no impact on the main stem during low flow conditions. For this reason, effluent limits for the City of Winnfield will remain the same as the previous permit.

The City of Winnfield submitted effluent analysis from a sample collected on April 10, 2008. The data indicated the presence of Copper, Nickel, Zinc, Dibromochloromethane, Bromodichloromethane, and DDE. This data was subsequently evaluated using the Water Quality Screen (Appendix B-1) to determine if water quality based effluent limits were needed for any of these parameters. The screen indicated a water quality based limit was needed for Bromodichloromethane, Dibromochloromethane, and DDE.

Fact Sheet

LA0043915; A128158; PER20060002

Page 4

During the draft comment period, the permittee may submit the results of three (3) or more additional effluent analyses taken no less than 48 hours apart to either refute or substantiate the presence of DDE, Dibromochloromethane, and Bromodichloromethane. Prior to finalization of this permit, the additional analyses will be evaluated by this Office to determine if the pollutant is potentially in the effluent and if it exceeds the State's water quality standards. If a water quality based limit is needed in the final permit, an interim period is proposed to allow the permittee time to comply with the limit.

Interim limits shall become effective on the effective date of the permit and expire three years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	122	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Effluent Limitations Policy (SSEL) for facilities of this size in the original Ouachita Basin Plan.
TSS	183	15 mg/l	23 mg/l	Limits are set in accordance with the Statewide Effluent Limitations Policy (SSEL) for facilities of this size in the original Ouachita Basin Plan.
Ammonia nitrogen	49	4 mg/l	8 mg/l	Limits are based on the previous permit. They were established through Best Professional Judgment.

Priority Pollutants

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Max. (lbs/day)	Basis
DDE	Report	Report	A Water Quality Screen indicated the need for a Water Quality Based Limit. For monitoring and data gathering purposes, report is proposed in the interim period.
Bromodichloromethane	Report	Report	A Water Quality Screen indicated the need for a Water Quality Based Limit. For monitoring and data gathering purposes, report is proposed in the interim period.
Dibromochloromethane	Report	Report	A Water Quality Screen indicated the need for a Water Quality Based Limit. For monitoring and data gathering purposes, report is proposed in the interim period.

Fact Sheet

LA0043915; A128158; PER20060002

Page 5

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

4) Total Residual Chlorine

If chlorination is used to achieve the limitations on Fecal Coliform Bacteria, the effluent shall contain NO MEASURABLE Total Residual Chlorine (TRC) after disinfection and prior to disposal. Given the current constraints pertaining to chlorine analytical methods, NO MEASURABLE will be defined as less than 0.1 mg/l of chlorine. The TRC shall be monitored daily by grab sample.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, September 27, 2001, VERSION 4). Whole effluent toxicity testing is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics.

Based on information contained in the permit application and a review of biomonitoring test results required by the previous permit, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. Testing since the issuance of the previous permit has demonstrated 16 lethal and 23 sub-lethal test failures for *Pimephales promelas* and 16 lethal and 30 sub-lethal test failures for *Ceriodaphnia dubia*. Although the facility initiated a Toxicity Reduction Evaluation in October of 2004, no final report was submitted. A WET limit is established in the proposed permit to meet narrative criteria which, in part, states that 'No substances shall be present in the waters of the State or the sediments underlying said waters in

Fact Sheet

LA0043915; A128158; PER20060002

Page 6

quantities alone or in combination will be toxic to human, plant, or animal life ...' (LAC 33:IX.1113.B.5).

The toxicity test procedures stipulated as a condition of this permit are listed below.

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No LA0043915 Section E for the organisms indicated below.

TOXICITY TESTSFREQUENCY

Chronic static renewal 7-day survival & reproduction test
using Ceriodaphnia dubia (Method 1002.0)

1/quarter

Chronic static renewal 7-day survival & growth test
using fathead minnow (Pimephales promelas) (Method 1000.0)

1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 30%, 40%, 54 %, 72%, and 96%. The whole effluent toxicity limit (critical low-flow dilution) is defined as 96% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in Section E under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in Section E of the permit.

Final Effluent Limitations:

Final effluent limits shall become effective on three years from the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	122	10 mg/l	15 mg/l	Limits are set in accordance with the Statewide Effluent Limitations Policy (SSELP) for facilities of this size in the original Ouachita Basin Plan.
TSS	183	15 mg/l	23 mg/l	Limits are set in accordance with the Statewide Effluent Limitations Policy (SSELP) for facilities of this size in the original Ouachita Basin Plan.
Ammonia nitrogen	49	4 mg/l	8 mg/l	Limits are based on the

Fact Sheet

LA0043915; A128158; PER20060002

Page 7

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
				previous permit. They were established through Best Professional Judgment.

Priority Pollutants

Effluent Characteristic	Monthly Avg. (lbs./day)	Daily Max. (lbs/day)	Basis
DDE	3.34e ⁻⁰⁶	7.94e ⁻⁰⁶	A Water Quality based effluent limitation based on water quality data for the receiving waterbody.
Bromodichloromethane	0.12	0.28	A Water Quality based effluent limitation based on water quality data for the receiving waterbody.
Dibromochloromethane	0.0892	0.212	A Water Quality based effluent limitation based on water quality data for the receiving waterbody.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgment in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

Fact Sheet

LA0043915; A128158; PER20060002

Page 8

4) Total Residual Chlorine

If chlorination is used to achieve the limitations on Fecal Coliform Bacteria, the effluent shall contain NO MEASURABLE Total Residual Chlorine (TRC) after disinfection and prior to disposal. Given the current constraints pertaining to chlorine analytical methods, NO MEASURABLE will be defined as less than 0.1 mg/l of chlorine. The TRC shall be monitored daily by grab sample.

Toxicity Characteristics

The biomonitoring procedures stipulated as a condition of this permit are discussed under Interim Effluent Limits and listed again below.

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No LA0043915 Section E for the organisms indicated below.

TOXICITY TESTSFREQUENCY

Chronic static renewal 7-day survival & reproduction test
using Ceriodaphnia dubia (Method 1002.0)

1/quarter

Chronic static renewal 7-day survival & growth test
using fathead minnow (Pimephales promelas) (Method 1000.0)

1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 30%, 40%, 54 %, 72%, and 96%. The whole effluent toxicity limit (critical low-flow dilution) is defined as 96% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in Section E under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in Section E of the permit.

X.

PREVIOUS PERMITS:

LPDES Permit No. LA0043915

Issued:

December 1, 2001

Expired:

November 30, 2006

Effluent CharacteristicDischarge LimitationsMonitoring Requirements

	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	Continuous	Recorder
CBOD ₅	10 mg/l	15 mg/l	2/week	6-hr.composite
TSS	15 mg/l	23 mg/l	2/week	6-hr.composite
Ammonia-Nitrogen	4 mg/l	8 mg/l	2/week	6-hr.composite
Fecal Coliform Colonies	200	400	2/week	6-hr.composite

The permit contains pretreatment language.

The permit contains biomonitoring.

The permit contains pollution prevention language.

Fact Sheet

LA0043915; AI28158; PER20060002

Page 9

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspection was conducted for this facility.

Date – June 20, 2007

Inspector - LDEQ

Findings and/or Violations -

1. Facility consists of a boat clarifier, chlorine contact chamber and drying beds.
2. The facility was issued compliance order WE-CN-06-0389.
3. Grit chamber is being renovated; completion is expected by 9/07.
4. Modification and renovation of clarifier and drying beds should be done by fall 2007.
5. DMR reconciliation with bench sheets for January, 2007 was satisfactory.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement actions administered against this facility:

LDEQ Issuance:

Docket # - WE-CN-06-0389

Date Issued – February 28, 2007

Findings of Fact:

1. Respondent owns and operates a publicly owned treatment works located at 1003 McLeod Drive and Winnfield, Louisiana. An LPDES permit was reissued to the Respondent on December 1, 2001 and authorizes the discharge of treated sanitary wastewater into Creosote Branch, thence into the Dugdemona River.
2. Respondent was issued Consolidated Compliance Order & Notice of Potential Penalty WE-CN-04-0014 on or about March 23, 2004 for effluent limitations violations, failure to maintain adequate records and reports, improper sampling techniques, unauthorized discharges, operation and maintenance deficiencies, and failure to use approved test methods. This Order was determined a final action and no longer subject to further review.
3. The Respondent was issued Consolidated Compliance Order & Notice of Potential Penalty MM-CN-04-0065 on or about November 23, 2004 for effluent limitation exceedences, failure to maintain and /or retain adequate records and reports, failure to submit accurate DMRs failure to submit DMRs in a timely manner, unauthorized discharges, operation and maintenance deficiencies, depositing of solid waste without a permit, and failure to use approved test methods. This Order was determined a final action and no longer subject to further review.
4. On or about May 13, 2005 the Respondent submitted written notification of an unauthorized discharge of approximately 3500 to 4000 gallons of untreated sewage to a roadside ditch.
5. An inspection by the Department on or about June 8, 2005 revealed

Fact Sheet

LA0043915; A128158; PER20060002

Page 10

that floating solids were observed in the receiving ditch and the chlorine contact chamber.

6. A follow-up inspection was conducted by the Department on or about June 15, 2006 and revealed the Respondent substituted grab samples in place of 6 hour composite samples as required by the LPDES permit. The grit removal system was broken and grit was observed on the surface in some places of the treatment system. Also, sludge had not been waste from the plant since April, 2005.

7. A follow-up inspection was conducted by the Department on June 28, 2006. Effluent samples were collected. The sample results were as follows: CBOD concentration was 9 mg/l (permit limit is 10/15mg/l); TSS concentration was 16.25 mg/l (permit limit is 15/23 mg/l); ammonia-nitrogen concentration was 16.08 mg/l (permit limit is 4/8mg/l).

8. Numerous violations were discovered during a subsequent file review of DMRs from the period beginning January, 2005 through January, 2007. (This includes persistent effluent lethality exhibited during testing of Ceriodaphnia dubia and Pimephales promelas.)

9. Respondent failed to submit the LPDES permit renewal application in a timely manner and failed to submit the final report on TRE activity, specifically the permit requires the final report be submitted 28 months after confirming lethality.

Order:

1. The Respondent was ordered to take any and all steps necessary to meet and maintain compliance with the LDPES permit.
2. The Respondent was ordered to following tasks and comply with a schedule of activities to upgrade the sewerage treatment plant. The construction completion date of which was December 31, 2007. Consistent compliance must be demonstrated by February, 2008.
3. The Respondent had thirty days to submit a report detailing violations actions taken to correct violations and achieve compliance.
4. Respondent was notified of their right to a hearing.
5. A Notice of Potential Penalty was also included and Respondent was required to submit the most current annual gross revenue statement and a statement of monetary benefits of noncompliance to the Department for review.

C) DMR Review

A review of the discharge monitoring reports for the period beginning March, 2006 through January, 2008 has revealed the following violations:

<u>Effluent Characteristic</u>	<u>Number of Violations</u>
BOD ₅ - (concentration)	44
TSS - (concentration)	44
Fecal Coliform	3
pH	1

As a result of compliance problems, the City recently renovated their facility. The aeration basin was completely dewatered and solids removed. Sludge drying beds and pumping stations were also upgraded. The work was completed in December, 2007. DMR results for January, 2008 showed an exceedance of BOD₅ and Fecal coliform Weekly Averages. No other violations were noted through the most recent DMR submittal of 4/08.

Fact Sheet

LA0043915; A128158; PER20060002

Page 11

XII. ADDITIONAL INFORMATION:

In accordance with LAC 33:IX.2707.C, this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

- a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- b) Controls any pollutant not limited in the permit; or
- c) Requires reassessment due to change in 303(d) status of waterbody; or
- d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body. The LDEQ will be conducting TMDLs in the Barataria Basin Subsegment 020202. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

STORMWATER PROVISIONS

The requirements of Part II, Section B apply to stormwater discharges associated with industrial activity as defined at LAC 33:IX.2511.B.14.i and Sector T of the LDPES Multi-Sector Stormwater Permit LAR5000. These requirements apply to point source stormwater discharges associated with domestic sewage treatment works with a design flow of 1.0 MGD or more. POTWs with flows over 1 MGD are designated as major facilities. The City of Winnfield Treatment Facility has a design capacity over 1 MGD. Therefore, they will also be required to develop a Stormwater Pollution Prevention Plan to be effective six months from the effective date of the permit.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 1.46 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ gal/lb} \times 1.46 \text{ MGD} \times 10 \text{ mg/l} = 122 \text{ lb/day}$$

At present, the Monitoring Requirements, Sample Types, and Frequency of Sampling as shown in the permit are standard for facilities of flows between 1.0 and 5.0 MGD.

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, standard pretreatment language is included in the permit.

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

Fact Sheet

LA0043915; A128158; PER20060002

Page 12

XIV

REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Winnfield, City of Winnfield Wastewater Treatment Plant, July 12, 2006.